

CLAIM AMENDMENTS

The following listing of claims replaces all prior listings and versions of claims in this application.

1. (Currently Amended) A wager-based gaming machine comprising:

one or more speakers;

a master gaming controller adapted to process and facilitate the presentation of a wager-based game;

a digital sound system comprising:

at least one memory unit storing data, wherein said data comprises one or more wave files, one or more sets of wave table data, or both, and

a digital signal processor configured to produce audio output for said one or more speakers, wherein said digital signal processor is adapted to perform at least one function selected from the group consisting of generating original audio output and modifying existing sound files;

a programmable logic device interposed between the master gaming controller and the digital sound system ~~such that said digital signal processor is unable to communicate directly to said master gaming controller;~~ and

wherein

said programmable logic device converts instructions from said master gaming controller to instructions that can be executed by said digital signal processor, and

said programmable logic device and said master gaming controller are communicatively coupled by a control line, an address line, and a data line, said control

line and said address line configured such that information can only be sent from the master gaming controller to the programmable logic device, and said data line configured such that data bits may be sent in both directions.

2. (Currently Amended) The gaming machine of claim 1, wherein the programmable logic device forms an event sequencer interposed between the master gaming controller and the digital signal processor[[,]].
3. (Original) The gaming machine of claim 1, wherein said digital signal processor is configured to alter musical or tonal parameters while a sound file is playing.
4. (Original) The gaming machine of claim 1, wherein said digital signal processor is configured to synthesize music in real-time.
5. (Original) The gaming machine of claim 1, wherein said digital signal processor is configured to provide audio output tailored to a player currently using the gaming machine.
6. (Original) The gaming machine of claim 4, wherein said audio output is tailored by at least one or more parameters selected from the group consisting of language selection, gender selection, accent selection, and style selection.
7. (Original) The gaming machine of claim 1, wherein said digital signal processor is configured to recognize speech used by a player at or near the gaming machine.

8. (Original) The gaming machine of claim 1, wherein said digital sound system further comprises a microphone, as well as speech recognition logic implemented on the digital signal processor.

9. (Original) The gaming machine of claim 1, wherein said digital sound system comprises additional memory for storing audio processing algorithms for execution on the digital signal processor.

10. (Currently Amended) The gaming machine of claim ~~[[1]]~~ 2, wherein said event sequencer is installed in a manner that prevents the digital signal processor from effecting operation of the master gaming controller.

11. (Currently Amended) A wager-based gaming machine, comprising:

a central processing unit adapted to process and facilitate the presentation of a wager-based game;

a programmable logic device separate from and connected to said central processing unit;
and

a digital signal processor adapted to generate and control digital output, said digital signal processor being separate from and connected to said programmable logic device,

wherein said programmable logic device is interposed between said central processing

unit and said digital signal processor, ~~such that said digital signal processor is unable~~

~~to communicate directly to said central processing unit,~~

~~and~~

wherein

said programmable logic device converts instructions from said central processing unit to instructions that can be executed by said digital signal processor, and

said programmable logic device and said central processing unit are communicatively coupled by a control line, an address line, and a data line, said control line and said address line configured such that information can only be sent from the central processing unit to the programmable logic device, and said data line configured such that data bits may be sent in both directions.

12. (Previously Presented) The wager-based gaming machine of claim 11, wherein said digital signal processor is adapted to generate and control audio output for one or more speakers.

13. (Previously Presented) The wager-based gaming machine of claim 12, wherein said digital signal processor is configured to alter musical or tonal parameters while a sound file is playing.

14. (Previously Presented) The wager-based gaming machine of claim 12, wherein the digital signal processor is configured to provide audio output tailored to a current user of the device.

15. (Previously Presented) The wager-based gaming machine of claim 11, wherein said programmable logic device comprises an event sequencer.

16. (Previously Presented) The wager-based gaming machine of claim 11, wherein said central processing unit comprises a master gaming controller.

17. (Currently Amended) A method of providing sound in a wager-based gaming machine, comprising:

~~providing a central processing unit adapted to process and facilitate the presentation of a wager based game;~~

~~providing a programmable logic device separate from and connected to said central processing unit;~~

~~providing a digital signal processor adapted to generate~~
receiving, at a programmable logic device, CPU instructions from a central processing unit, said central processing unit being configured to process and facilitate presentation of a wager-based game;

converting said CPU instructions to DSP instructions that can be executed by a digital signal processor;

generating and control-controlling audio output for one or more speakers, responsive to the DSP instructions, with the digital signal processor, said digital signal processor being separate from and connected to said programmable logic device, the programmable logic device being separate from and connected to the central processing unit;

wherein

~~interposing~~ said programmable logic device is interposed between said central processing unit and said digital signal processor, ~~such that the digital signal processor is unable to communicate directly to the central processing unit; and~~

~~programming said programmable logic device to convert instructions from said central processing unit to instructions that can be executed by said digital signal processor~~

said programmable logic device and said central processing unit are communicatively coupled by a control line, an address line, and a data line, said control line and said address line configured such that information can only be sent from the central processing unit to the programmable logic device, and said data line configured such that data bits may be sent in both directions.

18. (Previously Presented) The method of claim 17, wherein the digital signal processor is configured to provide audio output tailored to a current user of the wager-based gaming machine.

19. (Original) The method of claim 17, wherein said programmable logic device comprises an event sequencer.

20. (Original) The method of claim 17, wherein said central processing unit comprises a master gaming controller.

21-22. (Canceled)

23. (Previously Presented) The gaming machine of claim 11, wherein said digital signal processor is configured to synthesize music in real-time.

24. (Currently Amended) The gaming machine of claim 23, wherein said ~~audio~~ digital output is tailored by at least one or more parameters selected from the group consisting of language selection, gender selection, accent selection, and style selection.

25. (Previously Presented) The gaming machine of claim 11, wherein said digital signal processor is configured to recognize speech used by a player at or near the gaming machine.

26. (Currently Amended) The gaming machine of claim 11, ~~wherein said digital sound system~~ further ~~comprises~~ comprising (i) a microphone, ~~as well as~~ and (ii) speech recognition logic implemented on the digital signal processor.

27. (Currently Amended) The gaming machine of claim 11, ~~wherein said digital sound system~~ ~~comprises~~ further comprising additional memory for storing audio processing algorithms for execution on the digital signal processor.

28. (Currently Amended) The gaming machine of claim ~~[[11]]~~ 15, wherein said event sequencer is installed in a manner that prevents the digital signal processor from effecting operation of the master gaming controller.